## LISTING OF THE CLAIMS

Please amend the claims as shown below. An identifier indicating the status of

each claim is provided.

Listing of Claims

1.      (Currently Amended)  A system for recording and/or reproducing

programs received or programmed to be received, comprising:

program sorting means for sorting said programs into categories according to a

predetermined rule;

virtual channel management means for assigning virtual channels to respective

categories, and for setting said programs, sorted into said categories, in sequential order on the

assigned virtual channels;

program recording means for recording said programs in the respective categories

on the assigned virtual channels or programming a recording schedule thereof;

user operation means for accepting user-based channel select operation and/or

program search operation on said virtual channels; and

program presentation means for extracting a corresponding program for

reproduction from a selected virtual channel in response to user operations accepted through said

user operation means,

wherein time base for display of each virtual channel advances when the virtual

channels are not displayed. independently and continuously on each virtual channel for the

period of time when other virtual channels are selected to give a viewer an impression that

virtual channels are indistinguishable from non-virtual channels.

2.      (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

        wherein an entry of the categories of said virtual channels is made according to

user profiles ~~and/or~~ or user instructions.

3.      (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

        wherein said virtual channels include a virtual channel for an array of programs,

which are not included in ~~any~~ a category. ~~for the failure to set an associated category by the~~

~~user.~~

4.      (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

        wherein said program sorting means ~~is to sort~~ sorts said programs into categories

according to EPG (Electronic Programming Guide) ~~and/or~~ or user instructions.

5.      (Previously Presented)  A system for recording and/or reproducing

programs according to claim 1,

        wherein the reproduction start order of the programs on the virtual channels is in

conformity with a priority established in accordance with at least one of an on-the-air program

order, user profiles and user instructions.

6.     (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

wherein said virtual channel management means ~~is to shift~~shifts reproduction start

positions on the virtual channels ~~in the process of~~being selected and non-selected with the lapse

of real time.

7.     (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

wherein said user operation means ~~is to accept~~accepts program search operations

including pause, fast forward and rewind of reproduction positions on the virtual channels.

8.     (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

wherein said user operation means ~~is to accept~~accepts operations of specifying a

program preservative status, inclusively of deletion, preservation and reservation, for

~~later~~subsequent watching, relating to specific programs on the virtual channels.

9.     (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

wherein said virtual channel management means ~~is to manage~~manages the

preservative status of the programs set in array on the virtual channels. ~~as well.~~

10.     (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

said virtual channel management means ~~is to identify~~ identifies each

program set in array on the virtual channels as one watched by the user or not.


11.     (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

said virtual channel management means ~~is to locate~~ locates the programs

on the virtual channels according to a specified preservative status with respect to each of the

recorded programs.


12.     (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

said virtual channel management means ~~is to locate~~ locates a program,

identified as one watched, in a period of a near past on a time base on the associated virtual

channel.


13.     (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

said virtual channel management means ~~is to locate~~ locates a program,

identified as one programmed to be deleted, in a period of a remote past on a time base on the

associated virtual channel.

14.    (Currently Amended)  A system for recording and/or reproducing programs according to claim 1,

wherein said virtual channel management means is to locate locates a program, identified as one preserved, in a period of a slightly remote past on a time base on the associated virtual channel.

15.    (Currently Amended)  A system for recording and/or reproducing programs according to claim 1,

wherein said virtual channel management means is to locate locates a program, identified as one programmed to be recorded, in a period of a future, provided that a point on and after a date is required, on a time base on the associated virtual channel.

16.    (Currently Amended)  A system for recording and/or reproducing programs according to claim 1,

wherein said virtual channel management means is to locate locates a program, identified as one remaining recorded without being watched, in a period of a future spare available time on the associated virtual channel.

17.    (Currently Amended)  A system for recording and/or reproducing programs according to claim 1,

wherein said virtual channel management means is to locate locates a program, identified as one in process of reservation, in a period of a future spare available time on the associated virtual channel preferentially.

18.      (Canceled)

19.      (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

wherein said virtual channel management means ~~is to display~~ displays scheduling

of programs on each virtual channel and a ~~watching~~ viewing status and a preservative status of

each program in a form of being readily identified. ~~at a glance.~~

20.      (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

wherein said virtual channel management means ~~is to locate~~ locates a series of

programs on a same virtual channel continuously.

21.      (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

wherein said virtual channel management means ~~is to shift~~ shifts a reproduction

start position on the virtual channel in a process of being selected to a period of a future or a past

on a time base in response to fast forward or rewind instructions supplied through said user

operation means.

22.      (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

wherein said virtual channel management means inhibits ~~permits no~~ fast forward

operation for a program corresponding to one earlier than a date.


23.     (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1,

wherein said virtual channel management means ~~is to shift~~ shifts a reproduction

start position on the virtual channel in a process of being selected to a period of a future or a past

on a time base in response to fast forward or rewind instructions supplied through said user

operation means, while setting a reproduction start position on the virtual channel in a process of

not being ~~non~~ selected so as to follow the lapse of real time.


24.     (Currently Amended)  A system for recording and/or reproducing

programs according to claim 1, further comprising

real channel management means for assigning real channels to programs,

wherein said program presentation means ~~is to take out~~ removes the recorded

program for reproduction from the virtual channel selected through said user operation means in

response to the selection of said virtual channel, while presenting the program on the real

channel selected through said user operation means in response to the selection of said real

channel.


25.     (Currently Amended)  A system for recording and/or reproducing

programs according to claim 24,

wherein said user operation means ~~is to accept~~ accepts a channel select operation

~~requiring no~~ without a distinction between the real channels and the virtual channels.


26.    (Previously Presented)  A system for recording and/or reproducing

programs according to claim 1, further comprising:

management means for managing reproduction information relating to programs

paused on each virtual channel.


27.    (Previously Presented)  A system for recording and/or reproducing

programs according to claim 26,

wherein said management means displays a list of paused programs for accepting

the user selection on the list, and starts reproduction of the corresponding recorded program in

response to the user selection.


28.    (Currently Amended)  A method of recording and/or reproducing

programs received or programmed to be received, comprising:

a program sorting step of sorting the programs into categories according to a

predetermined rule;

a virtual channel management step of assigning virtual channels to respective

categories, and of setting said programs, sorted into said categories, in sequential order on the

assigned virtual channels;

a program recording step of recording the programs in the respective categories

on the assigned virtual channels or programming a recording schedule thereof;

a user operation step of accepting a user-based channel select operation and/or a

program search operation on the virtual channels; ~~and~~

a program presentation step of extracting a corresponding program for

reproduction from a selected virtual channel in response to the user operation accepted through

said user operation step[[,]]; and

advancing a time base for display of each virtual channel <u>when the virtual</u>

<u>channels are not displayed.</u> ~~independently and continuously on each virtual channel for the~~

~~period of time when other virtual channels are selected to give a viewer an impression that~~

~~virtual channels are indistinguishable from non-virtual channels.~~

29.     (Previously Presented)  A method of recording and/or reproducing

programs according to claim 28,

wherein an entry of categories of the virtual channels is made according to user

profiles and/or user instructions.

30.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channels include a virtual channel for <u>an</u> array of programs,

which are not included in ~~any~~ <u>a</u> category<u>.</u> ~~for the failure to set an associated category by the~~

~~user.~~

31.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said program sorting step ~~is to sort~~ sorts the programs according to EPG

(Electronic Programming Guide) ~~and/or~~ or user instructions.

32.    (Previously Presented)  A method of recording and/or reproducing

programs according to claim 28,

wherein the reproduction start order of the programs on the virtual channels is in

conformity with a priority established in accordance with at least one of program order, user

profiles and user instructions.

33.    (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step ~~is to shift~~ shifts reproduction start

positions on the virtual channels ~~in a process of~~ being selected and non-selected in response to

the lapse of real time.

34.    (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said user operation step ~~is to accept~~ accepts program search operations

including pause, fast forward and rewind of reproduction positions on the virtual channels.

35.    (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said user operation step ~~is to accept~~ accepts operations of specifying a

recorded program preservative status, inclusively of deletion, preservation and reservation, for

~~later watching~~subsequent viewing, of specific programs on the virtual channels.


36.    (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step ~~is to manage~~ manages a

preservative status of programs set in array on the virtual channels.


37.    (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step ~~is to identify~~ identifies the

programs set in array on the virtual channels as one watched by the user or not.


38.    (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step ~~is to locate~~ locates the programs on

the virtual channels in response to a specified preservative status with respect to each of the

recorded programs.


39.    (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step is to locate locates a program,

identified as one watched, in a period of a near recently past on a time base on the associated

virtual channel.

40.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step is to locate locates a program,

identified as one programmed to be deleted, in a period of a remote past on the time base on the

associated virtual channel.

41.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step is to locate locates a program,

identified as one preserved, in a period of a slightly recently remote past on a time base on the

associated virtual channel.

42.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step is to locate locates a program,

identified as one programmed to be recorded, in a period of a future, provided that a point on and

after a date is required, on a time base on the associated virtual channel.

43.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step ~~is to locate~~ locates a program,

identified as one remaining recorded without being watched, in a period of a future ~~spare~~

available time on the associated virtual channel.

44.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step ~~is to locate~~ locates a program,

identified as one in process of reservation, ~~preferentially~~ in a period of a future ~~spare~~ available

time on the associated virtual channel.

45.     (Canceled)

46.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step ~~is to display~~ displays scheduling of

programs on each virtual channel and a watching status and a preservative status of each

program in a form of ~~being~~ readily identified. ~~at a glance.~~

47.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step ~~is to locate~~ locates a series of

programs on a same virtual channel continuously.


48.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step ~~is to shift~~ shifts a reproduction start

position on the virtual channel in a process of being selected to a period of a future or a past on a

time base in response to fast forward or rewind instructions. ~~supplied through said user~~

~~operation means.~~


49.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step ~~permits no~~ inhibits fast forward

operation for a program corresponding to one earlier than a schedule date.


50.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28,

wherein said virtual channel management step ~~is to shift~~ shifts a reproduction start

position on the virtual channel in a process of being selected to a period of a future or a past on a

time base in response to fast forward or rewind instructions ~~supplied through said user operation~~

~~means~~, while setting the reproduction start position on the virtual channel in a process of being

non-selected to follow the lapse of real time.

51.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 28, further comprising:

a real channel management step of assigning real channels to programs, said

program presentation step ~~is to take out~~ deletes the recorded program for reproduction from the

virtual channel selected ~~through said user operation means~~ in response to a selection of said

virtual channel, while presenting the  program on the real channel selected ~~through said user~~

~~operation means~~ in response to the selection of said real channel.


52.     (Currently Amended)  A method of recording and/or reproducing

programs according to claim 51,

wherein said user operation step ~~is to accept~~ accepts a channel select operation

without ~~requiring no~~ distinction between the real channels and the virtual channels.


53.     (Previously Presented)  A method of recording and/or reproducing

programs according to claim 28, further comprising:

a management step of managing reproduction information relating to paused

programs on each virtual channel.


54.     (Previously Presented)  A method of recording and/or reproducing

programs according to claim 53,

wherein said management step displays a list of paused programs for accepting

user selection on said list, and starts the reproduction of the corresponding recorded program in

response to the user selection.

55.    (New)    The apparatus as claimed in claim 1,

wherein time base for display of each virtual channel advances when the

virtual channels are not displayed .

56.    (New)    The apparatus as claimed in claim 1,

wherein the time advances independently and continuously on each virtual

channel for the period of time when other virtual channels are selected.

57.    (New)    The method as claimed in claim 28,

wherein the time base for display of each virtual channel advances when the

virtual channels are not displayed .

58.    (New)    The method as claimed in claim 28,

wherein the time advances independently and continuously on each virtual

channel for the period of time when other virtual channels are selected.